UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/626,780	07/24/2003	Gordon R. McLeod	ITL.1001US (P16573)	1179

21906 7590 06/26/2007

TROP PRUNER & HU, PC
1616 S. VOSS ROAD, SUITE 750
HOUSTON, TX 77057-2631

EXAMINER	
VU, THONG H	

ART UNIT	PAPER NUMBER
2616	

MAIL DATE	DELIVERY MODE
06/26/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/626,780	MCLEOD, GORDON R.	
	Examiner	Art Unit	
	Thong H. Vu	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 July 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Claims 1-30 are pending.

Claim Rejections - 35 USC § 101

2. Claims 1,7,14,16,20,27 do not produce a concrete, useful and tangible result.

Claim Rejections - 35 USC § 102

Claims 1-30 are rejected under 35 U.S.C. 102(e) as being anticipated by Dove et al [Dove 6,798,784 B2].

3. As per claim 1, Dove discloses A method comprising:

writing a first variable length packet to a first portion of a buffer (i.e.: multiplexer) [Dove, variable length packets, col 23 lines 60-65; multiplexers, col 6 lines 15]; and writing a second variable length packet to a second portion of the buffer while writing the first variable length packet [Dove, parallel bus, col 13 lines 15-25; write controller, col 14 lines 62-67].

4. As per claim 2, Dove discloses pre-rotating the first variable length packet to align the first variable length packet with a previous packet [Dove, pre-emptive, col 8 lines 49; aligner, col 14 lines 5-29].

5. As per claim 3, Dove discloses dynamically determining the location of the first portion based on a position of a previous packet and a size of the first variable length packet [Dove, calculation from the previous frame, col 14 lines 25-43].

6. As per claim 4, Dove discloses padding the first variable length packet to form a first output packet [Dove, output form, col 11 lines 30-49].

7. As per claim 5, Dove discloses outputting the first output packet when a next variable length packet is received by the buffer [Dove, the next packet grant word, col 18 lines 55-65].

8. As per claim 6, Dove discloses the first portion is at any location of the buffer [Dove, merge any combination, col 25 lines 34-40].

9. As per claim 7 Dove discloses A method comprising:

writing a first packet to a first portion of a data array, the first portion selectable based on a position of a previous packet and a size of the first packet [Dove, variable length packets, col 23 lines 60-65; multiplexers, col 6 lines 15].

As per claim 8, Dove discloses writing a second packet to a second portion of the buffer while writing the first packet [Dove, parallel bus, col 13 lines 15-25; write controller, col 14 lines 62-67].

10. As per claim 9, Dove discloses the first portion is at any location of the data array [Dove, merge any combination, col 25 lines 34-40].

11. As per claim l0, Dove discloses pre-rotating the first packet to align the first packet with the previous packet [Dove, aligner, col 14 lines 5-29].

12. As per claim 11, Dove discloses padding the first packet to form a first output packet [Dove, output form, col 11 lines 30-49].

13. As per claim 12 Dove discloses An apparatus comprising:

a decoder to set a packet size of a variable length packet, the decoder having n inputs and m outputs, the decoder to select how many of the m outputs are active based on the n inputs [Dove, packet size, ports, queues, col 23 lines 25-60].

14. As per claim 13, Dove discloses a data array coupled to the decoder to store the variable length packet [Dove, decoding, col 19 lines 49-67].

15. As per claim 14, Dove discloses the decoder comprises a thermometer decoder coupled to a shifter [Dove, a barrel-shift operation, col 14 lines 30-43].

16. As per claim 15, Dove discloses a shifter coupled to the data array to rotate the variable length packet prior to entry in the data array [Dove, a barrel-shift operation, col 14 lines 30-43].

17. As per claim 16 Dove discloses An article comprising a machine-readable storage medium containing instructions that if executed enable a system to:

write a first variable length packet to a first portion of a buffer [Dove, variable length packets, col 23 lines 60-65; multiplexers, col 6 lines 15]; and

write a second variable length packet to a second portion of the buffer while the first variable length packet is written [Dove, parallel bus, col 13 lines 15-25; write controller, col 14 lines 62-67].

18. As per claim 17, Dove discloses instructions that if executed enable the system to pre-rotate the first variable length packet to align the first variable length packet with a previous packet [Dove, pre-emptive, col 8lines 49; aligner, col 14 lines 5-29].

19. As per claim 18, Dove discloses instructions that if executed enable the system to determine the location of the first portion based on a position of a previous packet and a size of the first variable length packet [Dove, calculation from the previous frame, col 14 liens 30-43].

20. As per claim 19, Dove discloses the location of the first portion may be at any location in the buffer [Dove, merge any combination, col 25 lines 34-40].

21. As per claim 20 Dove discloses A system comprising:
a switch fabric; and a storage buffer coupled to the switch fabric to store a variable length packet, the storage buffer having a decoder to set a packet size of the variable length packet [Dove, variable length packets, col 23 lines 60-65; multiplexers, col 6 lines 15].

22. As per claim 21, Dove discloses a media access controller coupled to the storage buffer [Dove, GP MAC, col 12 lines 66].

23. As per claim 22, Dove discloses a system packet interface coupled between a network processor and the storage buffer [Dove, the host processor, col 17 lines 26-35].

24. As per claim 23, Dove discloses a system packet interface bus coupled between the network processor and the system packet interface [Dove, the host processor, col 17 lines 26-35].

25. As per claim 24, Dove discloses the decoder comprises n inputs and m outputs, the decoder to select how many of the m outputs are active based on the n inputs [Dove , Fig 7].

26. As per claim 25, Dove discloses the m outputs determine a size of the variable length packet [Dove, ports, size, col 23 lines 25-60].

27. As per claim 26, Dove discloses m equals 2n-1 [Dove, 24:1, col 20 lines 29-35].

28. As per claim 27 Dove discloses An apparatus comprising:

a register file to store first and second variable length packets, the register file having a plurality of cells to receive portions of the first and second variable length packets from a first input or a second input [Dove, messages are queued in memory implemented in registers, col 18 line 18; variable length packets, col 23 lines 60-65]; and

a multiplexer coupled to the register file to route the portions to the cells [Dove, multiplexers, col 6 lines 4-31].

29. As per claim 28, Dove discloses a select multiplexer coupled to the multiplexer to select whether a portion of the first variable length packet or the second variable length packet is to be stored in the cells [Dove, parallel bus, col 13 lines 15-25; write controller, col 14 lines 62-67].

30. As per claim 29, Dove discloses the plurality of cells comprises sixteen cells, each adapted to store a portion of the first variable length packet or the second variable length packet as inherent feature of the from of ATM cells [Dove, col 24 liens 56-65].

31. As per claim 30, Dove discloses a shifter coupled to the first input to rotate the first variable length packet prior to entry in the register file [Dove, barrel-shift, col 14 liens 31].

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thong H. Vu whose telephone number is 571-272-3904. The examiner can normally be reached on 6:00-3:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, *Lynn Feild* can be reached on 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Thong Vu
Primary Examiner

THONG VU
PRIMARY PATENT EXAMINER